

January 21, 2016

National Freedom of Information Officer
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (2822T)
Washington, DC 20460
(202) 566-1667

Re: Freedom of Information Act Request

Electronically submitted via FOIA Online

Dear Sir or Madam:

Pursuant to the Freedom of Information Act (FOIA), 5 U.S.C. 552, I am requesting copies of documentation in the custody of the Environmental Protection Agency (EPA) pertaining to lists of Monsanto Company's customers that purchased compounds containing polychlorinated biphenyls (PCBs).

I have reason to believe that the EPA holds such lists based on the record of a congressional hearing held on October 24, 1975. This document is entitled "Hearing before the Subcommittee on the Environment of the Committee on Commerce, United States Senate (94th Congress, 1st Session) on S. 776, to regulate commerce and protect human health and the environment by requiring testing and necessary use restrictions on certain chemical substances, and for other purposes." The Subcommittee on Environment was chaired by Senator Philip A. Hart of Michigan. Senator Frank E. Moss of Utah was the Vice Chairman. I have included excerpts of this document as part of **Attachment A** to this request. Excerpts include the title page, table of contents, and relevant testimony.

The first witnesses called in the hearing on October 24, 1975, were Dr. John L. Buckley, Consultant, Office of Research and Development, Environmental Protection Agency, accompanied by Glenn Schweitzer, Director, Office of Toxic Substances, Environmental Protection Agency.¹

¹ Please see p. 61 of *Hearing before the Subcommittee on the Environment of the Committee on Commerce, United States Senate (94th Congress, 1st Session) on S. 776, to regulate commerce and protect human health and the environment by requiring testing and necessary use restrictions on certain chemical substances, and for other purposes*, October 24, 1975, Part 2, Serial No. 94-24 (Washington: U.S. Government Printing Office, 1976), which is included in Attachment A of this FOIA request.

At this hearing Dr. Buckley submitted a copy of the EPA Office of Enforcement's response to the subcommittee's request of October 1, 1975, for information on PCBs. In this letter, sent to Senator John V. Tunney, Stanley W. Legro, Assistant Administrator for Enforcement, writes:

"On August 16, 1975, EPA sent letters and questionnaires to 84 addresses. Those letters were sent pursuant to section 308 of the Federal Water Pollution Control Act (FWPCA), as amended, and section 114 of the Clear Air Act (CAA). Names of the addressees were obtained from three sources: a customer list provided to EPA by Monsanto Corporation, the sole domestic producer of PCBs; a list of importers of PCBs, provided to EPA by the U.S. Bureau of Customs; and industry trade lists containing names of manufacturers of capacitors or transformers."²

Later in this same letter are various answers to questions posed to the EPA. Section (3)(a) states that:

"Enclosed is a summary provided to EPA by the Monsanto Company of Monsanto's manufacture and sales of PCBs for the period 1957-1975 (first quarter)."³

The end of Legro's letter also notes "enclosures," indicating that materials such as the above summary were submitted by EPA to the Senate.

Section (5)(a) also notes:

"With respect to PCBs manufactured in this country, enclosed is the list provided to EPA by the Monsanto Company of Monsanto's PCB customers."⁴

The information cited above indicates that lists existed and in 1975 were in the custody of the EPA. Therefore, I am requesting:

- A copy of the customer list provided to the EPA by Monsanto;
- The summary provided to the EPA by Monsanto of Monsanto's manufacture and sales of PCBs for the period 1957-1975 (first quarter);
- Any other similar lists or charts, including those earlier than 1957, that document companies that purchased PCBs from Monsanto, particularly lists or charts that include the amounts and types of PCBs (e.g. Aroclor 1254) purchased and, if available, information on the company address where these materials were shipped.

Finally, Section (5)(c) states:

"In response to EPA's letters to Monsanto's customers and to importers, EPA has received lists of these companies' own customers (who purchase PCBs either in their chemical state or as incorporated in their products), reclaimers, or disposers. This

² Ibid., p. 62, which is included in Attachment A of this FOIA request.

³ Ibid., p. 62, which is included in Attachment A of this FOIA request.

⁴ Ibid., p. 62, which is included in Attachment A of this FOIA request.

information is quite detailed, with the lists of customers in some cases numbering into the hundreds. As indicated above, the processing of this information by EPA personnel has not been completed.”⁵

Therefore, I am also requesting:

- Any other similar lists or charts that document the *customers* of companies that purchased PCBs from Monsanto, particularly lists or charts that include the amounts and types of PCBs (e.g. Aroclor 1254) purchased and, if available, information on the company address where these materials were shipped. I am interested in all years for which this information is available, but particularly 1952-1972.

I am aware based on documents produced by the EPA in response to an earlier FOIA request submitted by a colleague of mine that the EPA does in fact have some documentation relating to Monsanto customer lists. The documents submitted by EPA in response to my colleague’s request included information on Monsanto’s customers that include the amounts and types of PCBs purchased. *This list, however, only includes data for 1970-1972. Attachment B* of this FOIA request includes the front matter of the materials my colleague received, as well as excerpts of “Exhibit F,” which lists Monsanto customers that purchased Aroclor 1254 and the amounts purchased (please note that these pages are included only as an example; the chart itself is quite extensive, and other charts in this document also contain the similar information, none of which predates 1970). The transmittal letters included at the beginning of Attachment B indicate that these materials appear to have submitted by Monsanto in 1975, around the time of the Senate hearing discussed above.”⁶

The documents included in Attachment A and Attachment B indicate that EPA should have in its possession some or all of the materials I am requesting.

To the extent that any relevant documents are classified, I request that they be declassified and/or sanitized for our review. If there are classified documents that will not be declassified and/or sanitized, I request that you identify any and all such documents by listing date, author, recipient(s) and unclassified subject matter. I would also appreciate receiving any materials that can be released as soon as possible, rather than waiting for all responsive documents to clear the review process.

I understand that the volume of records responsive to this request is potentially large. History Associates agrees to pay all reasonable and standard processing fees authorized by 5 U.S.C. 552(a)(4)(A) and the applicable regulations up to \$1,000. Should the fees exceed this amount,

⁵ Ibid., p. 63, which is included in Attachment A of this FOIA request.

⁶ The transmittal letters included at the beginning of Attachment B indicate that these materials appear to have submitted by Monsanto in 1975, around the time of the Senate hearing discussed above. The December 11, 1975 letter on the first page of Attachment B notes that Monsanto is submitting these documents “in response to a questionnaire which accompanied Mr. Stanley Legro’s letter dated October 17, 1975. See Attachment B, p. 1. As noted above, Stanley Legro was EPA’s Assistant Administrator for Enforcement who submitted the information to the Senate during the 1975 hearing indicating that he had received customer lists from Monsanto for 1957-1975. See Attachment A, p. 63.

please call me with an estimate of the total costs in order that specific expenditures beyond \$1,000 can be authorized.

If at all possible a rolling release of documents as they are located would be preferable rather than one bulk transmittal, as this would allow me to review the relevant materials in a more expedited manner.

Should you have any questions or concerns regarding this request, please contact me at (301) 279-9697 or asimpson@historyassociates.com.

Sincerely,



Andrew Simpson
Historian
Senior Project Manager for Litigation Research

ATTACHMENT A

TOXIC SUBSTANCES CONTROL ACT

HEARING
BEFORE THE
SUBCOMMITTEE ON THE ENVIRONMENT
OF THE
COMMITTEE ON COMMERCE
UNITED STATES SENATE
NINETY-FOURTH CONGRESS
FIRST SESSION

ON

S. 776

TO REGULATE COMMERCE AND PROTECT HUMAN HEALTH
AND THE ENVIRONMENT BY REQUIRING TESTING AND
NECESSARY USE RESTRICTIONS ON CERTAIN CHEMICAL
SUBSTANCES, AND FOR OTHER PURPOSES

OCTOBER 24, 1975

PART 2

Serial No. 94-24

Printed for the use of the Committee on Commerce



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Senator TUNNEY. Our first witness is Dr. John Buckley of the Environmental Protection Agency, accompanied by Mr. Glenn Schweitzer, who directs the Office of Toxic Substances.

STATEMENT OF DR. JOHN L. BUCKLEY, CONSULTANT, OFFICE OF RESEARCH AND DEVELOPMENT, ENVIRONMENTAL PROTECTION AGENCY; ACCOMPANIED BY GLENN SCHWEITZER, DIRECTOR, OFFICE OF TOXIC SUBSTANCES

Dr. BUCKLEY. Mr. Chairman, with your permission I will read the statement that has been presented to you.

Senator TUNNEY. Yes, Doctor; fine.

Dr. BUCKLEY. Mr. Chairman and members of the subcommittee, I am John Buckley, consultant to and former Acting Deputy Assistant Administrator for Program Integration of the Environmental Protection Agency's Office of Research and Development. I am accompanied by Mr. Glenn Schweitzer, Director of EPA's Office of Toxic Substances.

I appreciate the opportunity to discuss for the subcommittee the concern of the Environmental Protection Agency over the recent developments which suggest that environmental contamination by polychlorinated biphenyls (PCBs) is more widespread, and that some concentrations are higher than previously believed. For a number of years I have been directly involved in a broad range of governmental efforts to reduce environmental levels of PCBs.

In 1972 I thought that things were well in hand. The sole U.S. producer had already voluntarily restricted sales except for uses in closed electrical systems. The various agencies of the Federal Government each took actions within their regulatory authority. EPA's part of those efforts was support of the policy permitting use only in closed electrical systems and promulgation of a policy designed to restrict PCBs to very low levels in the aquatic environment. However, while we may have slowed the rate of growth of the problem, I am convinced now that in the absence of legislation authorizing additional governmental action the PCB problem will not be adequately resolved.

I am submitting for the record a copy of our response to the subcommittee's request of October 1, 1975, for information on PCBs. This information is based on industry responses received to date to recent EPA requests for data pursuant to section 114 of the Clean Air Act and section 308 of the Federal Water Pollution Control Act.

[The letter follows:]

U.S. ENVIRONMENTAL PROTECTION AGENCY,
OFFICE OF ENFORCEMENT,
Washington, D.C., October 20, 1975.

Hon. JOHN V. TUNNEY,
*U.S. Senate,
Washington, D.C.*

DEAR SENATOR TUNNEY: Mr. Train has asked me to respond to your letter of October 1, 1975, in which you requested a summary of information concerning Polychlorinated Biphenyls (PCBs) contained in responses to letters which the Environmental Protection Agency (EPA) recently sent to a number of companies. In your letter you also asked a number of questions about the distribution and uses of PCBs, and you requested any other information possessed by EPA which might be relevant to the proposed Toxic Substances Control Act.

Enclosed is a copy of a statement delivered by the Director of EPA's Office of Toxic Substances on August 29, 1975. This statement outlines the major ongoing EPA activities directed to PCBs. In addition to these activities, EPA, in cooperation with several other federal agencies, will host a National Conference on PCBs in Chicago on November 19-21. A copy of the press release announcing that conference is enclosed.

On August 16, 1975, EPA sent letters and questionnaires to 84 addressees. Those letters were sent pursuant to section 308 of the Federal Water Pollution Control Act (FWPCA), as amended, and section 114 of the Clean Air Act (CAA). Names of the addressees were obtained from three sources: a customer list provided to EPA by the Monsanto Corporation, the sole domestic producer of PCBs; a list of importers of PCBs, provided to EPA by the U.S. Bureau of Customs; and industry trade lists containing names of manufacturers of capacitors or transformers. Subsequent to August 16, additional letters have been sent to other companies which may be using PCBs. The names of such companies were obtained both from trade lists and from responses to the August 16 letters.

EPA personnel are now processing the information received from the various respondents. At present work has not been completed upon a summary quantification of that data. In responding to your specific questions, however, we have reviewed the responses so that our answers are based upon the information provided to date by the various companies.

Following are answers to your specific questions, numbered to correspond with those questions as they appeared in your letter:

(1) The Monsanto Industrial Chemicals Company is the sole domestic manufacturer of PCBs. Monsanto produces PCBs at its William Krummrich Plant, Sauget, Illinois. EPA does not possess information concerning the importation of PCBs as a part of products.

(2) As indicated above, the U.S. Bureau of Customs has provided EPA with a list of companies which import PCBs in their chemical state, and EPA sent letters to those companies requesting information concerning their uses of PCBs. This list of companies was compiled from information contained in invoices accompanying imported products, and the Bureau of Customs considers this to be confidential or privileged commercial information.

(3) (a) Enclosed is a summary provided to EPA by the Monsanto Company of Monsanto's manufacture and sales of PCBs for the period 1957-1975 (first quarter).

(b) According to the Bureau of Customs information, for the 44-month period from January 1, 1972 to August 30, 1975, the following amounts of PCBs were exported in their chemical state to the United States:

Exporter:	Pounds
France -----	598, 644
Italy -----	147, 895
Japan -----	247, 856
England -----	661
Germany -----	2, 646
Canada -----	6, 525
Total -----	1, 004, 227

Tabulated on a year-by-year basis, PCB imports have been as follows:

Year:	Pounds
1972 -----	281, 275
1973 -----	311, 662
1974 -----	184, 811
1975 (8 months) -----	226, 479
Total -----	1, 004, 227

(4) The principal uses of PCBs that EPA has been able to identify are as follows: dielectric fluids for transformers, capacitors, and radio frequency interference filters; fluids for electromagnets; heat transfer fluids; hydraulic oil; and plasticizers for waxes and adhesives.

(5) (a) With respect to PCBs manufactured in this country, enclosed is the list provided to EPA by the Monsanto Company of Monsanto's PCB customers.

(b) As indicated in (2) above, the list of importers provided to EPA by the Bureau of Customs is considered to be confidential or privileged commercial information. These importers include three companies which use PCBs as heat

transfer fluids and for research and testing purposes; three companies import PCBs for distribution to other companies; and one company imports PCBs for use in mining equipment.

(c) In response to EPA's letters to Monsanto's customers and to importers, EPA has received lists of these companies' own customers (who purchase PCBs either in their chemical state or as incorporated into their products), reclaimers, or disposers. This information is quite detailed, with the lists of customers in some cases numbering into the hundreds. As indicated above, the processing of this information by EPA personnel has not been completed.

(6) EPA has no evidence that the Monsanto Company has violated its voluntary agreement to restrict sales to customers involved in the manufacture of closed electrical systems. On the other hand, there are indications that several of Monsanto's customers are using PCBs for other purposes, such as heat transfer fluids and vacuum pump seal oil in their own manufacturing operations. In addition, evidence suggests that importers are also distributing PCBs for uses other than in closed electrical systems.

(7) (a) While only five spills had previously been reported to EPA Headquarters since 1972, information concerning approximately 15 others has been provided in responses to EPA's recent letters.

(b) In general, disposal of PCBs is primarily as waste in landfills and to a lesser extent by incineration. In addition, responses to EPA's recent inquiries indicate that PCBs are also "disposed of" by the original users through processors who reclaim PCBs for further use ("reclaimers") and oil companies.

(8) Of 106 finished water samples from interstate carrier systems examined by EPA for chlorinated hydrocarbons over the past 18 months, two samples contained PCBs. The finished water of Winnebago, Illinois, contained 3.0 ug/l of Aroclor 1242 and that of Sellersburg, Indiana, contained 0.1 ug/l of Aroclor 1260. Recent responses to EPA's letters have indicated possible contamination of several other drinking water supplies, as well. Three identified to date are Escondido, California (0.4 ug/l), New Bedford, Massachusetts (2.5 ug/l), and Bridgeport, Connecticut (1 ug/l).

(9) The enclosed statement presented at recent hearings held by the Wisconsin Department of Natural Resources details EPA's assessment of the health and environmental hazards associated with the manufacture, use, distribution, and disposal of PCBs. This statement includes a summary of recent health and ecological findings.

With respect to the PCB problem, the pending Toxic Substances Control Act would provide EPA with the critical authority to regulate the manufacture and import of PCBs. Your efforts to promote passage of that legislation are greatly appreciated.

Thank you for your interest in this important matter. You can be assured that EPA is using its statutory authority to take prompt action to identify and control the discharges of PCBs into our environment.

Sincerely yours,

STANLEY W. LEGRO,
Assistant Administrator for Enforcement.

Enclosures.

Dr. BUCKLEY. Also, I am submitting for the record a recent detailed statement by Mr. Schweitzer¹ setting forth the history of the PCB problem, the past efforts of Government and industry to address PCB's, and current EPA activities directed at reducing the problem.

In this statement I plan to highlight very briefly some of our current concerns, and of course we will be pleased to elaborate in detail on those aspects of particular interests to the subcommittee.

We have known for some time that PCB's are a group of chemicals which at certain levels can cause serious toxic effects on man and can adversely affect our ecological resources. During the past several years we have increased our understanding of the extent and nature of the human health threat of PCB's and the extent of the potential adverse effect on fish reproduction of very low levels of PCB's.

¹ See p. 77.

ATTACHMENT B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D. C. 20460

E.13.15 A-2

OFFICE OF ENFORCEMENT

Monsanto Industrial Chemicals Co.,
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

Gentlemen:

Recent governmental sampling data indicate the presence of Polychlorinated Biphenyls (PCBs) and comparable chemical substances in the air, in water bodies, and in fish in several areas of the country. In order to determine the nature and extent of the possible adverse effects resulting from the presence of PCB compounds in the environment, the Environmental Protection Agency (EPA), in cooperation with other federal and State agencies, is attempting to determine the sources and amounts of PCBs entering the environment. It is important that this effort be carried out without delay.

It is our understanding that your company handles PCB compounds or mixtures or comparable chemical substances in its operations. I am therefore requesting, pursuant to the authority provided by Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1318, and Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857c-9, that your company furnish EPA with information pertaining to your use and handling of PCBs and comparable chemical substances. In addition to a general description, which should include information as to sources, quantities, uses, and ultimate disposition, you should respond in detail to the enclosed questions. If any question is not applicable to your company or operations, please so indicate by responding "not applicable."

The information requested herein must be provided notwithstanding its possible characterization as confidential information or trade secrets. Should you so request, however, any information (other than effluent or emission data) which the Administrator of this Agency determines to constitute methods or processes entitled to protection as trade secrets will be maintained as confidential, pursuant to procedures specified in 40 CFR Part 2.

This letter was sent out undated. It was mailed on 10-23-75

Date - 10/17/75

AKHQ 0001352

Within 14 days of receipt of this letter, your company must provide all information concerning your current status and activities and covering the twelve month period immediately preceding receipt of this letter.

Within 30 days following receipt of this letter, your company must provide all information for all of the prior years indicated.

The information required herein should be sent directly to the address indicated below. If you have any questions you may call the person indicated below or Mr. Blake A. Biles of our office at (202) 755-8731.

We appreciate your prompt cooperation in this matter.

Sincerely yours,

Stanley W. Legro
Assistant Administrator
for Enforcement

Enclosure

Regional Contact:
Mr. Earl J. Stephenson
Director, Enforcement Division
Environmental Protection Agency
1735 Baltimore
Kansas City, Missouri 64108
Telephone: (816) 374-2576

AKHQ 0001353

Monsanto

MONSANTO INDUSTRIAL CHEMICALS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

November 10, 1975

Mr. Blake Biles
Office of Enforcement
United States Environmental
Protection Agency
Waterside Mall
401 M Street, S. W.
Washington, D. C. 20460

Dear Mr. Biles:

As discussed Friday during our telephone conversation, I am finding the mechanics of assembling the information for responding to the questionnaire attached to Mr. Stanley W. Legro's letter of October 17 to be very time consuming. As you know I was not able to meet the 14-day requirement for supplying recent information.

At your request I have attempted to predict the dates when I will be able to forward meaningful responsive information. The best estimate I can reach at this time is that I may be able to supply the requested information by December 15. It is my personal belief that if the information is supplied in one report, it would give a more complete description of the available PCB - PCT information.

One of the principal reasons for the delay is that polychlorinated terphenyl (PCT) information is requested. Since Monsanto terminated the manufacture and sale of these materials in 1972 and since no environmental effects have been reported, I suggest you may consider deleting the PCT request at this time.

AKHQ 0001354

Mr. Blake Biles

Page 2

November 10, 1975

As you suggested, it is possible that some of the available PCB information could be forwarded before the final report is submitted. Since much of the information I have reviewed to date consists of many interrelated parts, I would be concerned that the submission of partial information may lead to misunderstandings, or more likely, create the need for time consuming explanations which may defeat the purpose and still prolong the completion of the report.

Your favorable consideration of a time extension would be sincerely appreciated.

Sincerely,



W. B. Papageorge
Manager, Product Acceptability
Process Chemicals Division

WBP:pd

cc: Mr. Mike Sanderson
Enforcement Division
Environmental Protection Agency
1735 Baltimore
Kansas City, Missouri 64108

AKHQ 0001355

Monsanto



H-E

MONSANTO INDUSTRIAL CHEMICALS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

December 11, 1975

Mr. Earl J. Stephenson
Director, Enforcement Division
Environmental Protection Agency
1735 Baltimore
Kansas City, Missouri 64108

Dear Mr. Stephenson:

Attached is a response to the questionnaire which accompanied Mr. Stanley Legro's letter dated October 17, 1975.

To the best of my knowledge and belief, the information contained in this response represents the best information available to Monsanto.

If I can be of further assistance, please let me know.

Sincerely,

W. B. Papageorge
Manager, Product Acceptability
Process Chemicals Division

ajt

Attachment

CC: Mr. Stanley W. Legro
US Environmental Protection Agency
401 "M" Street, SW
Washington, D.C. 20460

POLYCHLORINATED BIPHENYL (PCB) COMPOUNDS OR MIXTURES

In this response the phrase "PCB compound or mixture" includes those materials listed under Base Products in Exhibit A.

1. (a) Monsanto Industrial Chemicals Company does not import PCB compounds or mixtures. Amounts produced for 1971, 1972, 1973, 1974 and the first three quarters of 1975 are included in Exhibit C.

- (b) Production facilities:

For 1971 and 1972

Monsanto Company
Box 249
Anniston, Alabama 36201

For 1971 to present

Monsanto Company
Route 3
Sauget, Illinois 62201

The amounts produced at the Anniston, Alabama plant are shown on Exhibit D. The Sauget, Illinois unit produced the amounts shown on Exhibit E. Wholesale and retail outlets are not used.

- (c) See Exhibit F for 1971, Exhibit G for 1972, Exhibit H for 1973 and 1974 and Exhibit I for 1975. The PCB compounds or mixtures from the Anniston, Alabama facility are listed in Exhibit D. The remaining were shipped from the Sauget, Illinois facility.
2. (a) See Exhibit A - pages 2, 3 and 4 and Exhibit B.
 - (b) See Exhibit A - pages 2, 3 and 4.
 - (c) The PCB compounds or mixtures used were produced by Monsanto. See 1(b).
 - (d) Production facilities are those shown under 1(b) and for 1971 and 1972 also included Monsanto Company, 1700 South Second Street, St. Louis, Missouri 63177. Products distributed through Monsanto's Anniston, Alabama unit are shown on Exhibit D. All Pyral products were distributed through the St. Louis, Missouri facility. Remainder of products distributed through the Sauget, Illinois unit. Amounts distributed are shown on the exhibits listed in 2c below.

- (e) See Exhibit F for 1971, Exhibit G for 1972, Exhibit H for 1973 and 1974 and Exhibit I for 1975. The products obtained from the Anniston, Alabama facility are listed in Exhibit D. The Pydraul products originated at the St. Louis, Missouri unit. The remaining were shipped from the Sauget, Illinois facility. We do not manufacture consumer products containing PCB compounds or mixtures.
3. (a) During 1971 and 1972 PCB compounds or mixtures were used as heat transfer fluids, hydraulic fluids and in transformers and capacitors. During the latter part of 1972, 1973, 1974 and 1975 PCB compounds or mixtures are only present in transformers and capacitors.
- (b) See Exhibit J. Amounts shown are for total Monsanto Company usage. No records are available to determine specific company facility. Inerteen was used in transformers. Pydrauls in air compressors. Therminols in industrial heat transfer systems.
- (c) The PCB products were all produced by Monsanto Company. The specific sources are shown on Exhibit J.
4. PCB compounds or mixtures are not reclaimed.
5. (a) During 1971 and 1972 solid waste material contaminated with PCB compounds or mixtures were buried in a secure landfill located within a fenced area on property owned by Monsanto Company at the Anniston, Alabama facility. Similar waste has also been buried in a secure landfill located on Monsanto Company property at the Sauget, Illinois facility during the period 1971 - 1975. Liquid wastes have been disposed by incineration for the period 1971 - 1975 in a high temperature unit located at the Sauget, Illinois facility. During 1975 solid waste was sent to Texas Ecologists, P. O. Box 307, Robstown, Texas 78380.
- (b) Waste materials containing PCB compounds or mixtures are received from many sources. The type of PCB compound or mixture in the waste is unknown. The concentration is also unknown. Solid waste is estimated as containing levels ranging from the ppm level to 50% by weight. Liquid waste is estimated to contain about 90% PCB compound or mixture.
- For amounts disposed see Exhibit K. Note the amounts shown refer to the total weight of waste. The actual PCB content is unknown.
- (c) See Exhibit K for total waste disposed. Concentration and type of PCB compound or mixture are unknown.

- (d) See Exhibit L. Total amounts of waste are shown. Concentration and type of PCB compound or mixture are unknown.
- (e) See 5a for name and location. See Exhibit K for amount disposed.
- 6. See Exhibit A. Monsanto Company does not import or reclaim PCB compounds or mixtures. Composition of disposed material is unknown but can range from ppm level to 100% by weight PCB.
- 7. (a) See Exhibit M for Sauget, Illinois facility waste effluent analyses. See Exhibit N for Anniston, Alabama facility water effluent analyses. For PCB emissions to the atmosphere at the Sauget, Illinois facility see Exhibit O. Analyses of air emissions were not made at the Anniston, Alabama facility.
- (b) See Exhibits M, N and O.
- (c) No information is available regarding the Anniston, Alabama facility. No information is available relating to PCB concentration in the air in the area of the Sauget, Illinois facility. Samples of the Mississippi River were taken in 1972. Results were as follows:

<u>*Sample Date</u>	<u>Location</u>	<u>mg/l PCB</u>
10/30/72	T.B. Bridge (downstream)	0.00012
12/13/72	Chain of Rocks Bridge (upstream)	0.0002 - 0.0004
12/12/72	N. of Ill. River (upstream)	0.0002 - 0.0004

*Analytical blank value at 0.00005-0.00017

- 8. (a) PCB compounds or mixtures are liquids and are transported in bulk or in steel drums.
- (b) See Exhibit P for transporters of PCB compounds or mixtures from Monsanto facilities. Transporters of material returned for disposal can be any common carrier serving the St. Louis, Missouri area.

9. Monsanto Company is not aware of any occasion in which PCB compounds or mixtures were introduced into the environment which is not already known to representatives of the Environmental Protection Agency. Examples include the contamination of fish meal in North Carolina, the drainage of fluid from a transformer in transit in Tennessee and the leakage of fluid from a damaged transformer in the Duwamish waterway in Washington.
10. Monsanto Company is not aware of any health or environmental effects resulting from the introduction of PCB compounds or mixtures into the environment which has not been reported in the scientific and popular press and already known to representatives of the Environmental Protection Agency.
11. (a) Monsanto Company has received reports that about 1800 drums of PCB compounds or mixtures are being offered by a company located in the northeastern U.S. for sale for any application. This information was received from Mr. Robert Laham, Hub Fabric Leather Company, 7 Charlton Street, Everett, Massachusetts 02149. This has been discussed with a representative of the Environmental Protection Agency.

Recently Pyramid Chemical Sales Company, 1035 Virginia Drive, Fort Washington, Pennsylvania 19034 has advertised the availability for any application of Aroclor 1221, Aroclor 1232 and Aroclor 5460. A representative of the Environmental Protection Agency has been informed.

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EXHIBIT F

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-IN THOUSANDS OF POUNDS AND DOLLARS-

NO.	NAME OF PRODUCT/CUSTOMER	POTENTIAL	LAST YEAR SALES	SALES GOAL FOR CURR YEAR	SALES CURR YTD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CUSTOMER #
	ARCOLOR 1254																00361A	1040-280-1
5516	ALFA INK - CHEM CARLSTADT NJ		.600															10111111
5612	ALLEGHENY LUDLUM BRACKENRID PA		.120															00105409
5545	ALLEN TOWN PAINT ALLENTOWN PA		.080															10002104
5725	ALLIED MATERIAL STROUD OK		31.3															10002557
5122	AMERICAN LACQUA TAMPA FL		.300															10004037
5419	AMERICAN METAL SEAL CARLSTADT NJ		.600															10004101
5726	AMERCOAT CORP BREA CAL		21.6															10003121
5114	AMCONDA CO NEW YORK CITY NY		1.00															00045175
5307	ARDEX LAUS INC PHILADELPHIA PA		.190															00228303
5724	ARMSTRONG CHEMICON CHICAGO IL		1.80															10004546
5392	ARMSTRONG CORN LANCASTER PA		.060															10005430
5301	ASSOCIATED PLASTICS HIALEAH FL		1.30															00234222
5557	ATLANTIC PAINT JACKSONVILLE FL		.600															00110523
5416	AUSE NYANJOTIE HACKENSACK NJ		9.00															00155165
5725	B & B ENG SUP BROQUELYN TX		.600															00231653
5414	BELRAY CO INC FARMINGDALE NJ		15.0															10009111
5728	ADHESIVE ENG SAN CARLOS CA		1.20															10000750
5605	BENDIX FILTER MADISON HOIS MI		.050															10009316
5414	BUNING GALLERIES NEW YORK NY		.080															00234125
5087	BURDEN HARTSETTA GA		3.60															10010489
5414	BURDEN MIDDLESEX NJ		.600															10010802
5609	BURDEN COLUMBUS OHIO		18.0															10010586
5612	BURDEN DELAWARE OH		2.40															10010515
	PARENT CUST. TOT-BURDEN COLUMBUS		24.6															10010586
5345	B A BRUDER & SONS PHILADEL PA		7.20															10012007
5417	BUDCO CO BRIDGEPORT PA		3.80															10012309
5173	CELANESE COATINGS RENARK NJ		3.00															10014577
5612	ALLEG SOLV CARNEGIE CARNEGIE PA		64.8															00107700
5612	ALLEG SOLV CARNEGIE CONAOP PA		64.8															10002095
	TOT P-T ALLEG SOLV CARN * POUNDS		64.8															00107700
5609	AMSCO SOLVENTS CINCINNATI OH		69.0		.600							.600						10005361
	TOT P-T AMSCO SOLVENTS * POUNDS		69.0		.600							.600						10005361
5054	BUFFALO SOLVENTS TONAWANDA NY		60.6															10012384
5054	BUFFALO SOLVENTS HEADVILLE PA		24.0															00231444
	TOT P-T BUFFALO SOLV BU * POUNDS		84.6															10012368

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~~-IN THOUSANDS OF BOUNDS AND COLLARS-~~

- IN THOUSANDS OF POUNDS AND DOLLARS -																			
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NAME OF PRODUCT/CUSTOMER			POTENTIAL	LAST YEAR SALES	SALES FOR CURR. YEAR	SALES CURR. YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CUSTOMER NAME
		ARDCOLOR 1254															00351A	1040-280-1	
5726		CENTRAL SOLV HAYWARD-HAYWARD		31.9															10015049
		TOT P-T CENTRAL SOLV HA * POUNDS		31.9															10015049
5730		CENTRAL SOL CHICAGO-CHICAGOIL		234															10015138
		TOT P-T CENTRAL SOLVENT * POUNDS		234															10015138
5728		CENTRAL SOLVENTS PORTLAND OR		33.6															00113425
		TOT P-T CENTRAL SOLVENT * POUNDS		33.6															00113425
5720		CENTRAL SOLV KENT WASH		3.00															10015006
		TOT P-T CENTRAL SOLV KE * POUNDS		3.00															10015006
5726		CENT SOL SANTA FE SPR-CA		336															10015111
		TOT P-T CENTRAL SOLV SA * POUNDS		336															10015111
5603		DIXIE SOL LOUISVILLE-LOUISVLE K		41.4															10022576
		TOT P-T DIXIE SOLVENTS * POUNDS		41.4															10022576
5639		HOJSR SOL INONAPLS-INDNAPLSIN		21.6															10038765
		TOT P-T HOJSTER SOL IND * POUNDS		21.6															10038765
5722		*HJ SOLV KANSAS CTY-KNS CTYNO		15.0															10053544
5722		MO SOLV ST LOUIS-ST LOUIS MO *		116															10053552
		TOT P-T MO SOLV ST LOUI * POUNDS		116															10053552
5612		OHIO SOLV CLEVELAND-CLEVELOH		234															10056953
		TOT P-T OHIO SOLVENTS - * POUNDS		234															10056953
5725		SOUTHERN NEW ORLEANS-N ORLELA		25.2															10074150
		TOT P-T SOUTHERN SOLV C * POUNDS		25.2															10074150
5725		TEXAS SOL HOUSTON-HOUSTONIX		137															10079373
		TOT P-T TEXAS SOLVENTS * POUNDS		137															10079373

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~~-IN THOUSANDS OF POUNDS AND DOLLARS-~~

- IN THOUSANDS OF POUNDS AND DOLLARS -																		
NO.	NAME OF PRODUCT/CUSTOMER	POTENTIAL	LAST YEAR SALES	SALES GOAL FOR CURR. YEAR	SALES CURR. YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CUSTOMER MAIL STOP NO.
	AROCOR 1234																00361A	1040-280-1
5725	TEXAS SOLV DALLAS-DALLASTX		13.2															10079411
	TOT P-T TEXAS SOLVENTS * POUNDS		13.2															10079411
5809	W EATON SOL ROMULUS-DETROIT MI		59.3															10085725
	TOT P-T WESTERN EATON S * POUNDS		59.3															10088925
5720	WISC SOLV MILWAUKEE-MNEAPLS MN		15.0															10090939
5720	WISC SOLV MILWAUKEE-M ALLIS WI		149															10091039
	TOT P-T WISC SOLV MILWA * POUNDS		164															10091012
5805	WOLV SOLV GRND RAPIDS-GR RPMI		7.86															10091268
	TOT P-T WOLVERINE SOLV * POUNDS		7.86															10091268
	PARENT CUST. TOT-CENTRAL SOL CHI		1692		.600								.600					10015138
5726	CERTIFIED ALLOY LONG BEACH CA		.600															00223067
5803	CHEM PROD CO RUMFORD RI		30.0															10015707
5809	CHRYSLER CORP TRENTON RI		330															10020735
5809	CINCINNATI MILACRON N BRUNS NJ		.120															10013976
5817	COLUMBIA TECH WOODSIDE NY		.600															10018072
5814	COMMERCIAL INS CORP NYC NY		1.20															00152412
5725	CONCRETE CURE CHEM DENVER COLO		.246															00260442
5729	CUNLEY CORPORATION TULSA OK		5.40		.060				.060									10018593
5724	CURK PAINT - VA N KAN CITY MO		3.00															10015444
5849	CUSDEN CHEM COATING BEVERLY NJ		7.80															10019938
5801	CROWN PAINT HIALEAH FL		.600															10020271
5724	CASURY COLUMBIA CO CHGO IL		22.2															10045229
5813	CUSTOM CHEMICALS E PATERSON NJ		.600															10020638
5801	DAVIS PAINT MFG LYNCHBURG VA		.120															00225214
5811	DELTA LAB INC ZUJER FL		.600															00232422
5726	DEKTER CORP HAYWARD CA		3.60															00230847
5848	DUJGE CORK CO INC LANCASTE PA		.120															00116535
5814	DUNMORE CORP KENILWORTH NJ		.060															00223362
5848	E I DUPONT NEWPORT DE		6.60															10023556
5848	E I DU PONT DE BEAUMONT TX		.060															10024021
	PARENT CUST. TOT-E I DU PONT DE		6.66															10023564
5812	DUNACOTE CORP RAVENNA OH		.600															10024242
5807	DYNASURF CHEM BALTIMORE MD		.600															10024439
																		338

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- IN THOUSANDS OF POUNDS AND DOLLARS -

QTY	NAME OF PRODUCT/CUSTOMER	POTENTIAL	LAST YEAR SALES	SALES QUOTE FOR CURR YEAR	SALES CURR YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CY CUMULATED
	AUGLOD 1254																CO361A	1040-250-1
5113	MARDIAN INC BELLEVILLE NJ		3.60															10036979
5672	PROTECTIVE TREATMENT DAYTON OH		6.00															10054937
5114	HUMPELS MARINE PT NEW YORK NY		500															10037409
5605	EMMETT MILLER MI		250															10039193
5720	HORSELOT PAINT CO EUREKA CA		060															00104550
5724	ILLINOIS ADHESIVE CHICAGO IL		79.2															10041319
5367	INDURALL COATINGS BIRMINGHAM AL		1.20															00125425
5722	IND SYNTHET ADH ST LOUIS MO		060															10040493
5307	INERTCH SYSTEMS CLIFTON VA		1.56															00226590
5720	INMONT CO ARABAMA CA		060															10041514
5723	INMONT CORP LOS ANGELES CALIF		3.00															00125805
5722	INMONT CORP ST LOUIS MO		10.2															10040539
5113	INMONT CORP ELIZABETH NJ		6.00															10040744
	PARENT CUST. TOT-INMONT CORP NYC		1.14															00044482
5724	JORDON PAINT FOREST PARK ILL		060															00164755
5722	KANSAS PT - COLOR WICHITA KS		060															10043475
5349	KARACKI BERYLCO ROYERTOWN PA		1.30															10043549
5314	KEFITE FLOORS BROOKLYN NY		060															10044066
5307	KEYSTONE LUBRICATING PHIL PA		1.80															10044227
5724	GEORGE KUCH EVANSVILLE IN		060															10044518
5720	KUHLER HOLISTER PT DENVER CO		1.20															10044542
5612	KUPPER COMPANY FONTANA CA		180															00229527
5612	KUPPERS COMPANY NEWARK NJ		444															10044790
5612	KUPPERS COMPANY WESTFIELD NJ		49.2															10044812
5612	KUPPERS COMPANY HOLLANDSBEE WV		298															00225552
	PARENT CUST. TOT-KUPPERS CO PITT		971															00044571
5116	LAUREL CO GARFIELD NJ		120															10045533
5723	LONGHORN PAINT SAN ANTONIO TX		060															00187119
5512	MATCHELS IND LOUISVILLE OHIO		720															00154771
5771	MARTINIAN ADHES BROOKLYN NY		6.00															10046419
5724	MORRAN EDISON SOUTH MI MI				600		600											00125910
5724	MINN MIN-MFG CORDOVA IL		330															00229733
5724	MINN MIN - MFG WAYNE MI		503															10052963
5724	MINN MIN CHEMOLITE SIDING MN		132															10052971
5345	MINN MIN - MFG BRISTOL PA		50.6															10053072
	PARENT CUST. TOT-MINN MIN - MFG		1105															10053015
5720	MOJIL CHEN KANKAKEE ILL		6.60															10053838
5118	MOJIL CHEMICAL CO EDISON NJ		75.6															10053676

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~~- IN THOUSANDS OF POUNDS AND COLLARS -~~

- IN THOUSANDS OF POUNDS AND DOLLARS -																		
NO.	NAME OF PRODUCT/CUSTOMER	POTENTIAL	LAST YEAR SALES	SINCE GOING FOR CURR. YEAR	SINCE CURR. YTD	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CUST. ID MAR 7 1983
	PARENT CUST. TOT-MOBIL OIL CORP		82.2															10054443
	AROCOR 1254																00361A	1040-280-1
5114	SID I CHEM INC STAT ISL NY		12.2															10078322
5116	BENJ MOORE NEARK NJ		3.60															10055188
5122	SPRIS PAINTS ST LOUIS IL		1.20															10154323
5124	MASSA-DUTCH BRAND CHICAGO IL		.600															00154500
5124	DAKER CASTOR OIL JAYBOR NJ		.201															10051024
5117	WATL STARCH PLAINFIELD NJ		1.20															10050359
5120	SAZAS RUBBER CO TOLEDO OH		2.40															10057140
5120	NILES CHEM PAINT NILES MI		.600															10057832
5178	PARKER STEARNS BROOKLYN NY		.950															10061974
5171	PARK KASE PLATE PLUSHING LI NY		.480															00170558
5115	S A PARK - CO HANOVER NJ		.600															00150005
5557	PENNYALT CORP MONTGOMERY AL		7.20															00230077
5557	PENNYALT CORP CHICAGO ILL IL		12.0															10051555
5507	PENNYALT CORP DELAWARE OH		1.00															10051553
5537	PENNYALT CORP CORNELL HTS PA		6.00															10051553
5537	PENNYALT CORP PHILADELPHIA PA		2.40															10051636
	PARENT CUST. TOT-PENNYALT CORP P		29.4															10051635
5722	PERMATEX CO INC KANSAS C KS		1.00															00131197
5816	PIGMENT DISPERSIONS ISLIN N J		.060															00215153
5803	PLYMOUTH ROK CANTON MASS		1.80															10063767
5845	POLYMER CORP READING PA		.800															10063947
5854	POLYMER INDUSTRIES STAMFORD CT		74.5															00180553
5854	POLYMER IND SPRINGDALE CT		21.6															10063930
	PARENT CUST. TOT-POLYMER INDUSTR		96.1															00183553
5725	POTTER CO WESSON MS		1.20		1.80					1.80								10064287
5612	PPG NEARK NJ		2.40															10064334
5728	PRODS RESEARCH GLENDALE CA		170															10064356
5345	PRODS RESEARCH GLOUCESTER NJ		301															10064354
	PARENT CUST. TOT-PRODUCTS RESEAR		471															00345755
5804	K J GUINN MALDEN MA		.300															10065712
5726	KAYCHEM CORP MENLO PK CA		2.40															10066468
5728	KAYCLAD TUBES MENLO PK CA		8.40															10066484
5726	KOR ENGINEER SALT LAKE CITY UT		.600															10066777
5171	REALE PAINT CORP BROOKLYN NY		.600															00227919
5100	REICHMOLD CHEM ELIZABETH NJ		.060															10067021
																		341

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~~- IN THOUSANDS OF POUNDS AND DOLLARS -~~

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- IN THOUSANDS OF DOLLARS AND CENTS -

NO.	NAME OF PRODUCT/CUSTOMER	POTENTIAL	LAST YEAR SALES	SALES QUOTE FOR CURR. YEAR	SALES CURR. YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	CUST ID / MAIL ORDER
	ARCOLOR 1254																00361A	1040-280-1
5725	TEXAS HIGHWAY AUSTIN TX		.840															00163083
5726	TEXTONE INC CITY OF COMMERCE CA		4.20															00181900
5727	THERMAL SYSTEMS ST LOUIS MO		.420															0014635
722	TIP TOP PROD OMAHA NEB		.130															10060215
5728	TRU-RITE INC BROOKLYN NY		.600															00141256
5114	UNION CARBIDE ROUND BROOK N J		.240															10081823
5387	UNION ANSCO TUCKER GA		51.0		.480								.480					10001501
5009	UNION ANSCO PALATINE IL		18.6		6.00	6.00												10004233
5307	UNION ANSCO BALTIMORE MD		15.0															10004234
5101	UNION ANSCO CHARLETT NC		76.8															10004152
5114	UNION ANSCO CARTERET NJ		.144															10004177
5307	UNION ANSCO CONSHOHOCK PA		.519															10004241
5729	UNION ANSCO PHILADEL PA		.157															10004276
5009	UNION ANSCO PROVIDENCE RI		58.2															10004535
5307	UNION ANSCO NASHVILLE TN		1.20															10004144
	PARENT COST. TOT-UNION OIL CO LO		1070		6.46	6.00							.48					00047155
5009	UPACO ADHESIVES HYDE PARK MA		.030															10085067
5009	UNIROVAL CHEM NAUGATUCK CT		.060															10082437
5009	UNIROVAL FIBER NAUGATUCK CT		.060															10082731
	PARENT COST. TOT-UNIROVAL NEW YO		.120															00047525
5114	UNITED LACQUER MFG LINDEN NJ		4.20		1.20	1.20												10083524
5729	U S GYPSUM NASHVILLE TN		1.20															00143022
5729	VALSPAR CORP RUTLEY NJ		10.2		4.80	4.80												00151548
5727	VIRGINIA PAINT MFG NORFOLK VA		3.60															00217492
5012	WALNORTH CO SO GREENBURG PA		.050															00207853
5171	WHARTON INDUSTRIES BROOKLYNNY		.600															00135376
5728	WINOSOR PLASTICS EVANSVILLE IN		.180															00181439
5729	WINTY OF WISC MADISON WISC		.060															00154911
5012	WITCO CHEMICAL CLEVELAND OHIO		1.20															00205170
5009	WMA MFG INC GENEVA IN		1.20															10087228
5728	YODER MFG LITTLE R AR		.120															00145557
	TOTAL PRODUCT * * * * * LB		7483		18.8	17.4	.6	.1	4.3	2.4		1.1						1040-280-1
	00361A * * * * * LB		1319		.044	3.65	.04	.14	.99	.22	3.23	1.13						
	ARCOLOR 1254 100 IQI																00363A	1040-282-1
5009	CONPO CHEM HANFIEL MA		10.2															00114863
5009	UNION ANSCO PROVIDENCE RI		2.40															10004535
5240	TESTINGHOUSE HAMPTON S C		1.20															10089506
	TOTAL PRODUCT * * * * * LB		13.8															1040-282-1
																		343

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PRODUCT/CUSTOMER SIZE: 100

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